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in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]	10724913		2003-12-01
on 12/3/08	First Named Inventor		
Signature / Colyn Ryl	Takayuki Kinoshita		
,	Art Unit		Examiner
Typed or printed Robyn Pyle name	2621		Hung Q. Dang
Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.			
This request is being filed with a notice of appeal.			
The review is requested for the reason(s) stated on the attached sheet(s).  Note: No more than five (5) pages may be provided.			
I am the	Q	, )	9
applicant/inventor.			Signature
assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)	Mich	ael E. Noe, Jr.	·
attorney or agent of record. 44975	512.542.2135		
	Telephone number		
attorney or agent acting under 37 CFR 1.34.	12	2-3-08	
Registration number if acting under 37 CFR 1.34		<del></del>	Date
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.  Submit multiple forms if more than one signature is required, see below*.			
*Total of forms are submitted.			

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual cancer comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



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Date of Submission

12/3/08

Bv:

Rolyn Rf

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: TAKAYUKI

KINOSHITA, ET AL.

Serial No.: 10/724,913

Filed: 2003 DECEMBER 01

For: RECORDING AND
REPRODUCING APPARATUS,
CONTENT REPRODUCING
APPARATUS, MAGNETIC DISK
DEVICE, AND CONTROL METHOD

**THEREOF** 

Attorney Docket No.: JP920020209US1

Examiner: HUNG Q. DANG

Art Unit: 2621

Confirmation No.: 3308

## PRE-APPEAL BRIEF REQUEST FOR REVIEW

MAIL STOP – AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sirs:

Applicant submits this Pre-Appeal Brief Request for Review in response to the Final Office Action dated September 4, 2008, having a shortened statutory period ending on December 4, 2008, and in conjunction with the accompanying Notice of Appeal, for the above-referenced patent application.

## **REMARKS**

Applicant respectfully disagrees with the Examiner's rejection of the claims. Applicant maintains that the Examiner has not established a prima facie rejection, and has not given patentable weight to Applicant's use of the claimed elements of the invention. The prior art of record fails to teach or suggest these elements.

With Applicant's invention, a personal video recorder can be fast forwarded or rewound to quickly move through the video content to desired images. When video content is recorded on a magnetic disk in a hard disk drive, the prior art teaches that the disk drive head must move through every data block on each rotation of the disk (i.e., circumferentially with respect to the disk) until the desired data block is reached. See, e.g., Applicant's background at paragraphs [0003] – [0006]. Applicant's invention eliminates the unnecessary relative circumferential motion and moves the head radially while maintaining chronological sequence of the video content with respect to the disk. With video, it is critical to maintain the chronology between the data blocks so that the visual images appear in the order they were recorded.

The cited primary reference to *Noda* is limited to the architecture of a DVD disk, not a hard disk drive. *Noda* discloses the portable medium itself, not the device that plays the media (e.g., DVD player). This reference fails to disclose data position calculating means for calculating a position of a data block for a digital content to be read next, and positions of other data blocks existing before and after the data block, as required by Applicant's claims.

Although the *Bohrer* reference has been cited for this proposition, it focuses on an overall network transfer rate of data to numerous clients (see FIG. 1), each of which requires a different file. Page 4, paragraph [0036], Abstract. *Bohrer* is not sensitive to the chronological sequence of data blocks. Paragraph [0034] of *Bohrer* makes it clear that it is not only indifferent to chronology, but actually teaches away from consideration of chronology. This reference is focused not on the chronology of the data blocks, but on "the network transfer rate," as evidenced in the first element of each of its independent claims (Claims 1, 10 and 18), and paragraphs [0008] and [0034]-[0037]. In particular, *Bohrer* states that: "If disk scheduler 206

determines that the physical location of a pending block is closer to the current position of the read/write head than the physical location of the next sequentially ordered block, the retrieval of data from the block that is closer may be prioritized over the retrieval of data from the next sequential block to minimize the physical movement of the read/write head. Thus, a decision is made in block 514 whether there is data on a track that is physically closer to the current head position than the track that would be next accessed if the request were processed sequentially." (emphasis added) Paragraph [0034].

Since the physical location of some data blocks will be closer to the head than some of the next sequential blocks, *Bohrer* is useless for video applications. *Bohrer* effectively teaches away from chronological sequential data block retrieval. Moreover, paragraph [0035] of *Bohrer* reveals that it does not use a single term that is related to chronological sequencing of the data blocks. Moreover, even if *Bohrer* were used on a single file, it still would not seek out the chronological sequence of the data blocks in that file based on the clear teaching of paragraph [0034].

Again, the reference focuses on an overall network transfer rate of data to numerous clients (see FIG. 1), each of which requires a different file. Paragraph [0036]; Abstract. Because *Bohrer* only focuses on retrieving the data for those different files to the clients as quickly as possible, it is indifferent to the chronological sequence of the data blocks. The server 106 pulls data from multiple files on the disk 108 based on the proximity of the data blocks to each other—not based on the sequence in which the data was recorded. This is a radically different concept than Applicant's invention since video content must be reproduced in chronological order to make any sense.

Bohrer's network (e.g., LAN, internet, etc.; see, e.g., paragraph [0016]) is for multiple clients 102 as shown in FIG. 1. In addition, both *Noda* and *Bohrer* are silent regarding data blocks that are before the current data block (i.e., for rewinding operations), since the references only address subsequent activity. *Noda* also fails to disclose data position calculating means for calculating a position of a data block for a digital content to be read next and positions of other data blocks existing before and after the data block, as required by all of Applicant's claims.

These significant differences between Applicant's claimed invention and the first two references renders moot the rejection under the other combinations of references. For example, the *Jun* reference is merely cited for the proposition that PVR's use rewind and fast forward operations, and *Dobbek* is cited to support head position estimating means.

Applicant's Claim 6 requires the head position estimating means to estimate "a present position of a head with respect to the recording medium for reading a single file of the digital content," and for the data position calculating means to calculate "a position of a data block for a digital content to be read next in chronological sequence in the single file, and chronological sequential positions of other data blocks existing sequentially before and sequentially after the data block in the single file." The requirement of moving through a single file (again either in forward or backward) in chronological sequential order is opposed to the teachings of *Bohrer*, which is only concerned with gathering data for multiple files as quickly as possible, no matter the order. Applicant again emphasizes that even if *Bohrer* did retrieve a single file, it would not gather the data in chronological sequential order, rather it would gather the data based on proximity of the data blocks regardless of their chronology.

Claim 6 also requires a "moving destination determining means for determining a data block at which the time required to move the head is the shortest, as a data block to be read next in chronological sequence, based on the present position of the head, which has been estimated by the head position estimating means, and the chronological sequential positions of the respective data blocks." Since chronology would frustrate the teaching of *Bohrer*, that reference is inadequate to reject the claims.

Claim 15 is directed to a "personal video recorder for reading and reproducing a digital video content" recorded in a hard disk drive. Positions of the data blocks for the digital video content are calculated "for rewind and fast operations, respectively, for displaying the digital video content on the personal video recorder." Claim 15 also requires the calculation of time required to move the head, based on the estimated present position of head and the positions of the respective data blocks; and reading a data block at which the calculated time required to move the head is the shortest. This digital video application is clearly distinguished from the

Internet network transfer of data to remote clients as shown and described by *Bohrer*. Moreover, although *Jun* and *Dobbeck* were cited in combination against Claim 15, the underlying and fundamental requirements of Claim 15 with regard to *Bohrer* likewise render that rejection moot.

Claim 17 includes the "single file" elements described above for Claim 6, and the "chronological sequential positions" of data blocks for the digital video content "for rewind and fast operations" described for Claim 15. This claim is allowable for the same reasons previously

established.

For the foregoing reasons Applicant requests review of the present application by a preappeal review board for a detailed review of appealable issues. Please charge any required fees to Hitachi Global Storage Technologies' Deposit Account Number 50-2587.

Respectfully submitted,

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